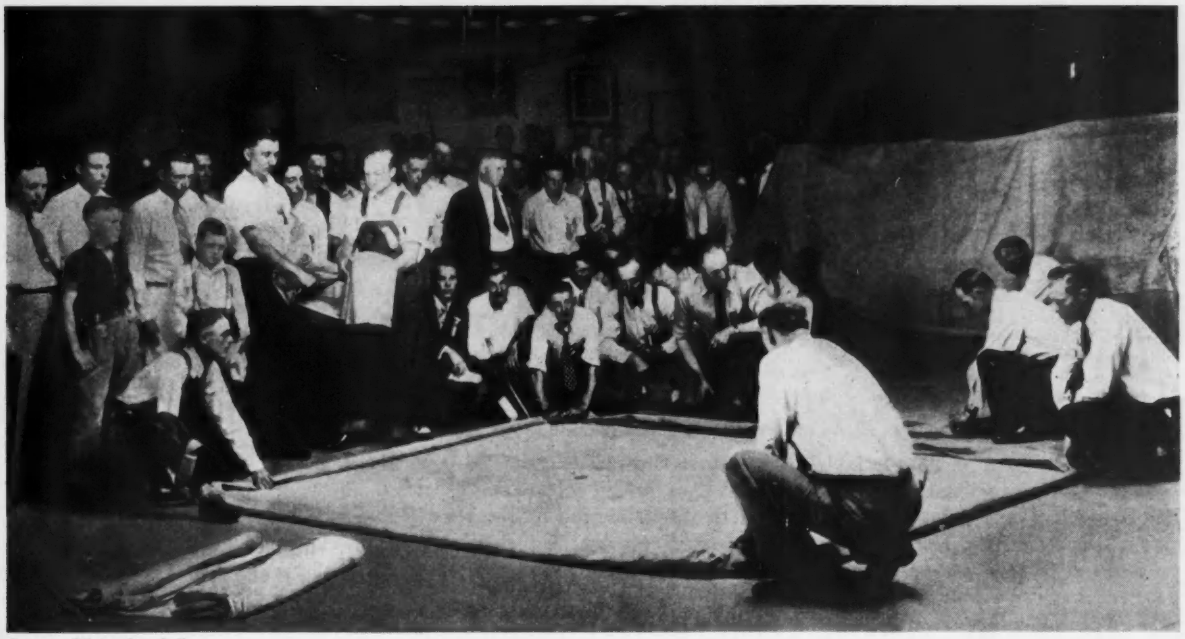
Volunteer Firemen

Professional Journal of the Volunteer Firemen's Section of the National Fire Protection Association #94859

Volume 3, Number 1 **BOSTON, MASSACHUSETTS** **January, 1936**



Courtesy Clinton Turnbull

Class in salvaging operations at Fifth Annual Fire College of the Colorado State Firemen's Association at Loveland, Colorado, June 24-25, 1935. Two hundred and six firemen from 54 departments attended the college.

350 Fire Schools

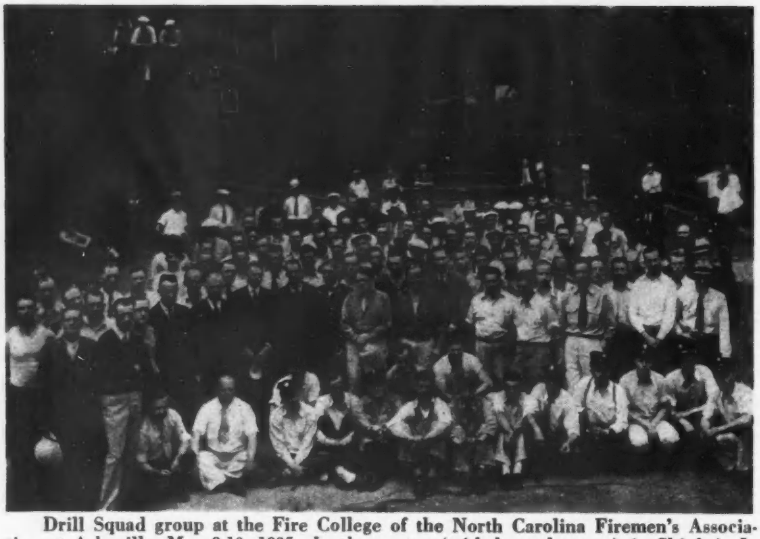
Attendance at Sessions Planned for 1936 Throughout United States and Canada Will Exceed the 1935 Record of 30,000

TWELVE years ago the first of the state fire colleges were held, one in Illinois and one in Iowa. During 1935 approximately 350 similar state and regional schools were in operation, showing the phenomenal growth of the fire school idea.

Of course, both before and since, individual cities which operated drill schools for their full-paid fire departments have been exceedingly generous in opening their schools to firemen from nearby communities which did not possess drill facilities. But the fire schools here discussed are additional schools which have been set up in organized fashion to provide drill and training work especially for the volunteer and part-paid fire departments in state and regional centers.

More than 30,000 firemen from nearly every state and province in the United States and Canada attended a fire school in 1935. Only six states held no school, and two of these sent men to schools in adjoining states. The average attendance was about 700 men per state, and in the states of Indiana, Nebraska, New York, Ohio, Pennsylvania, and Virginia the average attendance was 2,600 firemen per state.

Numerous fire schools have met the problem of bringing instruction to volunteer and part-paid firemen at such a time and place that the majority of the men may attend without much expense or loss of time from regular employment. In several states regional schools are held in the evening, in some states correspondence



Drill Squad group at the Fire College of the North Carolina Firemen's Association at Asheville, May 8-10, 1935. In the center (with brass buttons) is Chief A. L. Duckett of Asheville, host to the 1935 school. At his left is Sherwood Brockwell, State Fire Marshal and director of the college. Chief Brockwell also conducted the 1935 sessions of the South Carolina Fire College at Columbia, the Maryland State Fire College at College Park and a regional instructor's conference of the Virginia State Fire College at Richmond.

courses have been made available, and in one state regional schools are held on Sundays.

The trend toward a larger number of regional schools in most states has continued. State schools are becoming more and more of an advanced training school for fire department instructors, officers, and drillmasters. Each year the Western Actuarial Bureau sponsors a Fire Department Instructors' Conference in the Middle West which attracts leaders in firemen's training from all parts of the country. The 1936 Conference is being held the 7th to 9th of this month at Memphis, Tennessee.

Well organized schools were held for the first time during the year in Georgia, Kentucky, New Hampshire, and South Carolina. Reports indicate that even a larger number of schools will be held in 1936 than were held in 1935.

Agencies sponsoring the schools or cooperating to make them possible are state firemen's associations, fire chiefs' associations, county or regional firemen's organizations, state and provincial fire marshals, insurance inspection departments, state colleges and universities, the Fire Service Extension Committee of the U. S. Chamber of Commerce Fire Waste Council, state and federal departments in charge of vocational education, state leagues of municipalities, and similar organizations interested in increasing the efficiency of firemen and decreasing the fire loss. In several states, one or more of the above agencies provide full-time fire department instructors.

Plans for 1936 schools are not yet complete in many states, but the summary below gives an indication of what may be expected in each state. Members of fire departments wanting to take advantage of training should get in touch with their local organizations to find out when and where a school will be held within their reach.

Courtesy R. B. Criswell

Akron, Ohio, Regional School at which attendance of 1,062 was registered, June 11-12, 1935. Coventry Township Fire Department demonstrating small hose lines.

Alabama. A training school was held at Birmingham with members of nearby departments attending.

Alberta. A school is held each year in cooperation with the province of Saskatchewan. (See Saskatchewan.)

Arizona. Six experienced firemen are employed as itinerant instructors by the state. These men hold a two weeks' course in each fire department. Schools were held in 29 cities and towns during the past year with a total attendance of 441 firemen. Most of the departments in the state are composed of volunteer firemen.

Arkansas. A week's school is planned to be held in Little Rock the latter part of the summer of 1936.

British Columbia. Schools are held twice each year on Vancouver Island, and also on the Lower Mainland. Firemen from 17 volunteer and six paid fire departments attend these four schools.

California. A full-time instructor is employed by the State Department of Education, State Division of Fire Safety, and the State Fire Marshal. During the past year, officer's conferences were held at Watsonville, Kentfield, San Mateo, Yuma (Arizona), Pasadena, and Los Angeles with an average attendance of 25 and total attendance of 147. Instructors' Conferences were held at Colton, Pasadena, and Brawley with an average attendance of 12 and a total attendance of 36. Training schools for

firemen were held in 23 cities with an average attendance of 16 and total attendance of 358. This program is being enlarged this year.

Colorado. The Fifth Annual Fire College was held at Loveland, June 24-25, with 206 students registered from 54 fire departments. The school will be held at Manitou this year late in June.

Delaware. Courses were held for instructors in each of the three counties, with two members of each fire company attending. These leaders then conducted training classes in their respective companies with an average of 20 men in each company attending for a period of 12 weeks. This program will probably be continued this year.

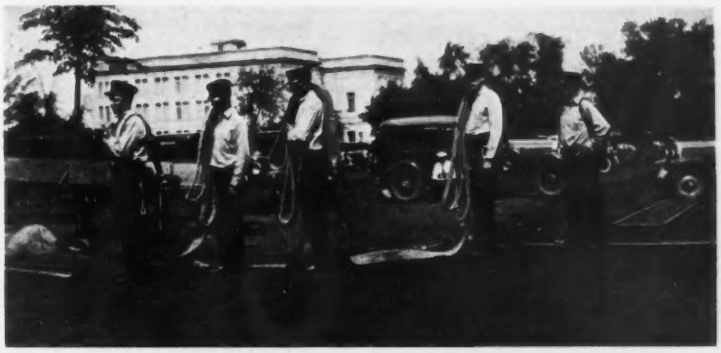
Florida. The Sixth Annual Florida Fire College was held at Daytona Beach, July 8-10, with over 180 in attendance. The 1936 school will be held at the same place in July. A class in mathematics for firemen was held in Miami with an enrollment of 159. Other courses will follow this year.

Georgia. The First Georgia State Fire College was held May 8-10 at Atlanta with 360 firemen present. Plans are being made to hold training schools this year in Albany, Augusta, Brunswick, Savannah, Waycross, Columbus, Macon, Thomasville, and Valdosta.

Idaho. No schools were held in 1935, but a number of Idaho chiefs attended the fire college at Spokane, Washington.

Illinois. The Eleventh Annual Illinois Fire College was held at the University of Illinois, Champaign-Urbana, June 11-14. A total of 412 men from 137 cities and towns were enrolled. The dates for this year's school are set for June 9-12, at the same place. Regional schools were held in Elgin, Rock Island, Centralia, Lebanon, Blue Island, DePue, Vandalia, and Abingdon. Plans are made to hold 17 regional schools this year before the time of the advanced school at the University of Illinois in June.

Indiana. The Second Annual Indiana Fire School was held at Purdue University, West Lafayette, October 29-30, with 550 present from 68 cities and towns. Regional fire schools were held during the summer in 51 cities with an average attendance of 41 and a total attendance of 2070. Other regional schools were held during November and December. The 1936 regional schools will start in the early spring.



Courtesy Lindon J. Murphy

Eleventh Annual Fire College at Ames, Iowa, May 21-24, 1935 with 488 present. Above, hose carrying operations at Ames.

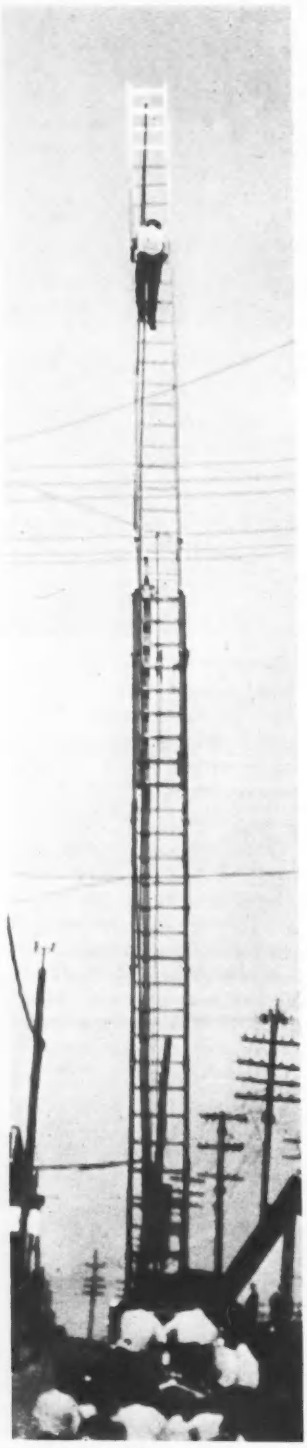
Iowa. The Eleventh Annual Fire School was held May 21-24 at the Iowa State College at Ames with 488 firemen registered. The Twelfth Annual School will be held at Ames, May 26-29 this year. District schools were held during October at Fort Dodge with 95 men attending, at Mason City with 60, at Atlantic with 58, at Ottumwa with 68, and at Cedar Rapids with 116 men.

Kansas. In October, regional schools for firemen were held at Independence, Arkansas City, McPherson, Garden City, Norton, and Manhattan with an average attendance of 48 and total attendance of 288 firemen. Two-day fire chiefs' conferences were held during April and September at Coffeyville, Arkansas City, Garden City, Norton, McPherson, and Manhattan with an average attendance of 19 and total attendance of 112.

Kentucky. The First Annual Kentucky State Firemen's School was held at the University of Kentucky, Lexington, February 12-14 with 192 firemen present from 40 cities and towns. This school will be held in May this year at Lexington. A two-day school was held at Hopkinsville in October with 65 men attending from 11 towns. A similar school will be held in the western part of the state this year.

Louisiana. The Fifth Annual State school was held at Baton Rouge, April 8-13 with 105 firemen attending from 42 cities and towns. This school for this year is planned for drillmasters only. Instruction will also be given at 10 regional centers to drillmasters from the smaller cities.

Maryland. The Sixth Annual Short Course for Firemen was held at the University of Maryland, College Park, September 3-7. Ninety-five volunteer firemen from 45 companies were enrolled. The 1936 school will be held at the same place, September 1-3.



Courtesy D. L. McElroy

Aerial ladder work at Fire Service Extension School of West Virginia University.

Massachusetts. The Third Instructor Training Conference for drillmasters was held at Worcester, June 3-7 with all 20 instructors present. Nineteen training schools were held in the 13 zone centers with 525 men enrolled representing 184 cities and towns. The zone centers are Falmouth, Truro, New Bedford, Brockton, Brookline, Arlington, Lowell, Haverhill, Worcester, Springfield, Pittsfield, Fitchburg, and Attleboro.

Michigan. The Seventh Annual State Fire College was held July 29-August 1 at Detroit, with an attendance of 250. The school will be held at Alpena this year. Conference schools were held in Saginaw, Lansing, Grand Rapids, Kalamazoo, and two in Detroit. There was an average attendance of 15 men, and each conference lasted four weeks, two days a week.

Minnesota. The Eighth Annual Northwest Fire School was held at the University of Minnesota, Minneapolis, during the week of August 19 with 271 firemen registered. This school will be held about the same time and at the same place this year. Regional schools were held at Glenwood with an attendance of 70, at New Ulm with 200 delegates from 42 towns, at Rochester with 200 men, at Baudette with 60 men, at Duluth, and at Detroit Lakes.

Mississippi. A four-day fire school for volunteer firemen was held at Aberdeen.

Missouri. The Sixth Annual Southeast Missouri Fire School was conducted at Ste. Genevieve, August 7-8. This year's school will be held in Dexter. The Second Northeast Regional Fire School was held at Hannibal, May 23, with over 100 present.

Montana. No school was held in 1935, but 15 chiefs attended the fire college held at Spokane, Washington.

Nebraska. The annual fire school was held in conjunction with the meeting of the Nebraska State Volunteer Firemen's Association at Hastings, October 15-17, with a registration of 1,800. The school is planned for October this year, but the place has not yet been decided upon.

Nevada. A school for firemen was held at Reno in May. This school will be held again this spring.

New Hampshire. A fire school was held at Concord, April 1-5 with an average daily attendance of 52.

New Jersey. Fire schools were held in Salem, Gloucester, and Camden Counties. A school will be held soon in Morristown. The State Department of Public Instruction will conduct classes for fire department officers at the request of departments.

New Mexico. The Sixth Annual Fire College was held at Santa Fe, June 20-22 with 31 departments represented by 139 men. The school will be held in Albuquerque this year, probably in June.

New York. Nineteen zone fire schools were operated in New York cities and villages during the past year with a record attendance of 5,502 firemen. These zone centers are: Buffalo, Rochester, Syracuse, Utica, Watertown, Ogdensburg, Troy, Nassau County, Albany, Poughkeepsie, New Rochelle, White Plains, Yonkers, Mount Vernon, Ithaca, Gloversville, Elmira, Binghamton, and Glens Falls. About 170 cities and villages are assigned to these zones. All zone schools will operate during the present year. An institute for fire chiefs was held at Syracuse, June 3-5. A school for zone instructors will be held this year in Albany to revise the present standard curriculum.

Courtesy R. B. Criswell

Temporary drill tower built for regional fire school, Akron district, Ohio.

North Carolina. The Annual North Carolina Fire College and Drill School was held at Asheville, May 8-10 with 75 fire departments represented by total enrollment of 289 men. This school will be held at Wilmington this year in May.

North Dakota. Two-day fire schools were held in September at Mandan with 29 departments represented by 165 men, at Devil's Lake with 34 departments represented by 173 men, at Minot with 35 departments represented by 111 men, and at Valley City with 26 departments represented by 139 men — making a total of 123 departments and 588 men attending the schools.

Ohio. The Advanced Fire School was held at the Ohio State University at Columbus, September 10-13 with a total registration of 133 from 26 cities and 4 states. Regional schools were held at Middletown, May 22-23 with 428 men registered from 33 towns; at Akron, June 11-12 with 1,062 men; and at Lyndhurst, July 12-13 with 100 men. This year regional schools are planned for the same districts, and probably one each will be held in northwestern and southeastern Ohio.

Oklahoma. Fire Chiefs' Conferences were held in February, March, and April at Stillwater, Lawton, Mangum, Woodward, Norman, McAlester, Sapulpa with 41 chiefs and 19 assistant chiefs in attendance. (Other conferences in this series were held in Kansas.) The Second Annual Oklahoma Firemen's Short Course for chiefs and instructors was held at Stillwater, September 30 to October 5 with 30 attending. This school will be held this year at the same place in April. A Teacher Training Conference was held at Oklahoma City, November 19-21, with 20 attending. Regional schools were held in 25 cities with an average attendance of 22 and total attendance of 550. Schools in drills and evolutions are planned for 40 cities and towns during the year. Schools to analyze the firemen's job to determine better ways and methods of firemanship are planned for 24 cities. Evening classes will be taught by trained firemen in every department desiring such training.

Oregon. The Annual Fire School was held at Corvallis, June 12-14. The 1936 school will be held at Marshfield.

Courtesy J. N. Farmer

A group of firemen and some of the equipment used at regional fire schools at Richmond, Virginia, in connection with the comprehensive system of zone schools in that state.

Pennsylvania. Conference training courses for instructors were held in eight counties. These teachers gave instruction to about 1,700 men.

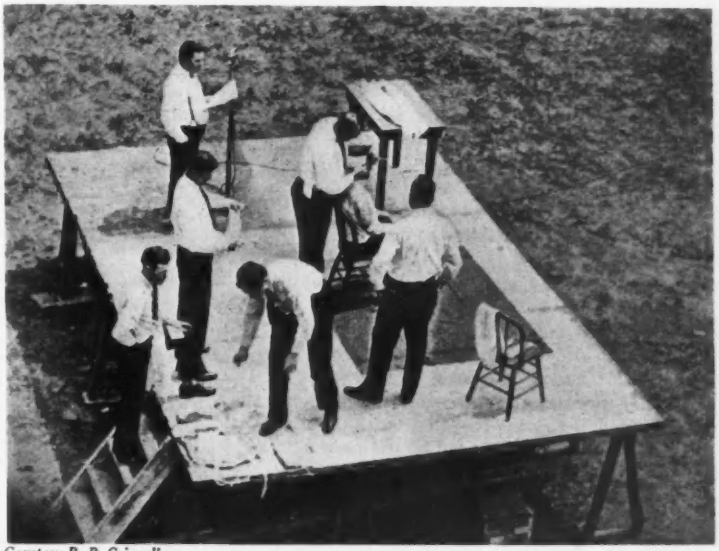
Saskatchewan. A school is held each year in some town near the border-line between the provinces of Saskatchewan and Alberta so that firemen of both provinces may attend. The school was held this year at Lloydminster with an attendance of about 150.

South Carolina. The First South Carolina State Firemen's College was held August 6-8 at Columbia with 95 men attending. This school will be held in May or June this year.

South Dakota. The Sixth Annual South Dakota Fire School was held at Hot Springs, June 3-7, with an attendance of 466.

Tennessee. A regional fire school was held at Bristol, February 26-28, with a registration of 79 men representing 8 towns and industrial plants. A regional fire school was held at Cleveland, April 23-25, with a registration of 48 men from 8 towns.

Texas. The Sixth Annual School for Texas Firemen was held at the Agricultural and Mechanical College of Texas at College Station, July 15-19, with 203 cities and towns represented by over 500 firemen. The 1936



Courtesy R. B. Criswell

Demonstration platform (note microphone) at Ohio regional school. Shaker Heights Fire Department crew demonstrating first aid.

session will be held at the same place in July. The state provides a full-time field instructor.

Utah. Training schools for firemen were held at American Fork, Duchesne, Eureka, Helper, Midvale, Milford, Payson, Provo, Richfield, Salt Lake County, Bingham, Cedar City, Herber City, Magna, Murray, Park City, Pleasant Grove, Price, Lehi, St. George, Salt Lake City, and Vernal with a total attendance of 458. The program will be extended this year.

Vermont. Short instruction sessions for volunteer firemen were given in Waterbury, Woodstock, and Plainfield by the drillmaster of the Montpelier Fire Department. This plan of reaching the men in their own departments may be enlarged this year.

Virginia. Fire schools were held in 24 zones or districts. In August, instructors from each of these districts attended an Instructors' Training Course at Richmond. The 24 schools are located at Alexandria, Bristol, Charlottesville, Clifton Forge, Danville, Farmville, Harrisonburg, Hopewell, Lawrenceville, Lynchburg, Newport News, Norfolk, Onancock, Orange, Petersburg, Portsmouth, Pulaski, Richmond, Roanoke, Staunton, Suffolk, Winchester, Arlington County, and Henrico County. Attendance during the past year was nearly 2,000 men.

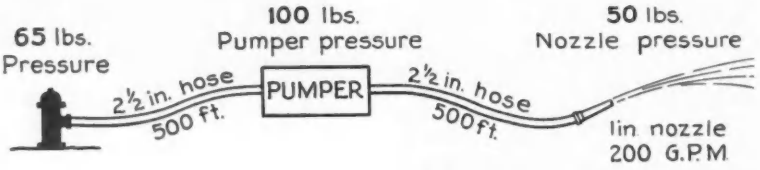
Washington. The Fifth Annual State Fire College was held June 19-22, at Spokane. This school will be held at Tacoma this year.

West Virginia. The Fifth Annual State Fire Service Extension School was held at Morgantown July 29-August 1 with 127 men registered from 34 fire departments. The school will be held July 27-30 this year at the same place. Two-day regional schools were held during April and May at Bluefield with 65 firemen registered, at Charleston with 125 men, at Clarksburg with 93 men, at Martinsburg with 83 men, and at Wheeling with 137 men attending. One-day schools were held in August at Thomas, Marlinton, Hinton, and Grafton with a total enrollment of 85. Five regional schools and several one-day schools will be held this year.

Wisconsin. The annual three-day fire school has not been held the last two years because the state legislature failed to appropriate funds for the purpose. Several regional fire schools were conducted by the fire department instructor provided by the Fire Insurance Rating Bureau.

Wyoming. The Third Annual Fire College was held June 26-28 at Sheridan with about 150 men registered. The school will be held at Thermopolis this year.

Will This Layout Work?



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Q. Will the first layout of 500 ft. of 2½ in. hose collapse when laid between hydrant and pumper (hydrant pressure 65 lbs.), with 500 ft. of 2½ in. hose from pumper to fire with a 1 in. nozzle tip?

A. A good fire stream from a 1 in. nozzle is produced at about 50 lbs. pressure at the nozzle and about 200 gallons per minute flow. With such a stream it does not appear that the first layout of 500 ft. of hose would collapse.

With 200 gallons per minute flowing, the friction loss in the 500 ft. of hose between the pumper and the 1 in. nozzle would be about 50 lbs. so that the pumper would have to produce a total of about 100 lbs. pressure — 50 lbs. to overcome friction in the hose, and 50 lbs. to produce a good stream at the nozzle.

Between the hydrant and the pumper the same amount of water would be flowing and the friction loss would also be 50 lbs. The hydrant pressure, however, is 65 lbs., which, less the 50 lbs. friction loss leaves 15 lbs. at the pumper. Since the pumper will probably operate satisfactorily even if as little as 10 lbs. pressure is available, it is not likely that the section of hose between the hydrant and the pumper would collapse.

If, however, the amount of water delivered at the nozzle was substantially greater, as would be the case with a larger nozzle tip or higher nozzle pressure, the increase in flow would cause greater friction losses in the two lengths of hose. Under such a condition it is conceivable that the pressure at the hydrant would be insufficient to overcome the friction in the 500 ft. of hose, and attempts to get additional water from the hydrant to the pumper would tend to collapse the ordinary hose between these two points.

Thawing Frozen Fire Hydrants

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Q. How would you thaw out a frozen fire hydrant?

A. By introducing steam into the hydrant by means of a line of steam hose. Quicklime is sometimes used by placing it in the hydrant with hot water. While this method is effective, it requires thorough flushing of the hydrant afterwards.

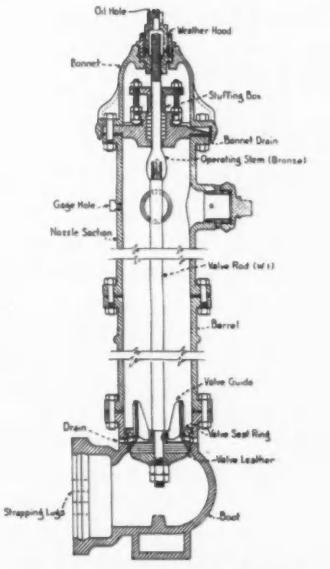
There are numerous other chemicals or chemical mixtures which, in the presence of water, generate heat and would tend to thaw a frozen hydrant. These include various acids, calcium carbide, and mixtures such as caustic soda and aluminum chips. All of these introduce severe danger to the hydrant from corrosion even with good flushing. In addition, nearly all give off explosive gases and are therefore very dangerous to use. In general, the use of chemicals is not to be recommended.

Building a fire around the hydrant, with wood or paper, or with some flammable liquid such as gasoline or alcohol, is also dangerous and unsatisfactory as it may result in cracking the hydrant barrel.

Fire hydrants which are properly installed are not likely to freeze up. Proper installation requires that about half a barrel of small stones be dumped in the trench directly under the hydrant so that the hydrant can drain itself after being used. The design of most hydrants is such that when the main valve several feet below the ground is closed the water will drain out of the barrel of the hydrant. If, therefore, proper attention is given to the features for draining, and the hydrant valve is a sufficient distance below ground there should be very little difficulty with frozen hydrants.

Hydrants, for the most part, are properly installed so that few departments encounter difficulty with them in relatively few cases only.

After a hydrant has been used at a fire the caps should not be replaced on the barrel until the hydrant has been given a chance to drain. Closing the barrel of the hydrant up tight may so slow up the draining process as to give it an opportunity to freeze during cold weather.



Section of a modern, well-built Fire Hydrant, showing details of valve and drain.

Problem Questions
FOR JANUARY
Suggested for discussion at company and department meetings this month

29

Describe a method by which one fireman may effectively carry an injured person.

30

When forcing entrance into a building in which there is a fire, what steps should be taken to minimize the damage that firemen may do to doors, windows, and household furnishings or merchandise?

Watch for the answers in the next issue of VOLUNTEER FIREMEN

Most fire companies protect themselves against frozen hydrants by inspecting them frequently. The inspectors report any leaky hydrants for immediate repair and often carry a small pump by means of which water found in a hydrant barrel may be pumped out.

Common ways to determine whether or not a hydrant is frozen are:

1. Sounding by striking the hand over the open outlet. Water or ice in the hydrant shortens the length of the "organ pipe" and raises the note.

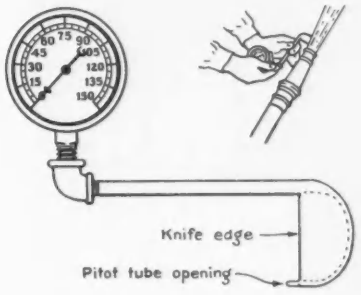
2. Trying to turn the hydrant stem. If frozen solidly, the stem will not turn.

3. Lowering a weight on a stout string into the hydrant. It may strike ice, or come up wet showing that there is water in the barrel.

A hydrant in which the valve is frozen from a slight leak may often be overcome by tapping the valve stem. Blows on the hydrant wrench should be moderate to prevent breaking the valve stem.

Portable thawing devices which are available for fire department use consist of a small steam boiler in which steam may be very rapidly generated by a burner supplied with compressed gas. This device provides live steam at the end of a short length of hose which may be pushed into the hydrant opening and very quickly thaws out the enclosed ice. These probably provide the most satisfactory methods of handling the situation.

Fire Tools



Pitot Tube and Gauge

A PITOT tube, with a water pressure gauge is used to determine nozzle pressures of fire streams. One end of the tube is attached to the gauge by means of an elbow fitting. The other end of the tube curves around to a small opening 1/16 in. in diameter. A knife edge across the inside of the curved part makes it possible to insert the tube in the nozzle stream without unduly disturbing the water flow.

Although the gauge shown above reads to 150 lbs., a gauge reading to 200 lbs. with a scale divided into lbs. and marked every five or ten lbs. has a wider range of usefulness. For measuring higher pressures, still larger gauges are required. All gauges used with Pitot tubes should be of good quality and accurate.

When using the Pitot gauge, the tube is placed in line with the center of the stream as shown above. The point of the tube should not be placed closer than one-half or further than one and one-half times the diameter of the nozzle away from the end of the nozzle. For example, with a ½-in. nozzle, the tip of the tube should be held between ¼ in. and ¾ in. from the end of the nozzle.

The pressure is read as the tube is moved slowly back and forth across the center of the stream to get an average reading.

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Published by the National Fire Protection Association, a voluntary non-profit organization, 60 Batterymarch Street, Boston, Massachusetts, U.S.A. (Copyright 1936.)

Volume 3 **January, 1936** Number 1

A Splendid Response We take this opportunity to thank our many friends for their prompt and splendid cooperation in sending us the data and photographs which made possible the summary of fire schools in this issue. We have taken considerable care to secure complete information and would appreciate being advised of any errors and omissions.

The growth in the number of fire schools from two to approximately 350 in twelve years is remarkable. Never before have the opportunities for training in the profession of fire prevention and fire fighting been greater than they are at the present time.

What Would You Do? The other day a minister in Brooklyn, New York, awoke early in the morning to find his house on fire. He organized his family into a bucket brigade using water from a lavatory on the fourth floor and saucepans, tea kettles, coffee pots and anything else handy for the buckets. Before going to work on the fire he called the fire department and he succeeded in holding the fire in check until the department arrived to finish the job.

Have you ever given any thought to simple fire prevention measures for your home and the other homes in your community? The Reverend's family bucket brigade probably saved his home, but a few well chosen and well placed fire extinguishers would have proven a lot more efficient in the emergency. A length of garden hose conveniently hung near a faucet, would have helped. Most people provide elementary precautions against burglars, but all too few people provide the slightest sort of fire protection for their home. Fire extinguishers, fire alarm devices, and "junior" sprinkler systems and garden hose, are all available at reasonable cost.

What is lacking is appreciation of the ever-present potential fire hazard in the home. Home fires are on the increase. Check your own home and spread the gospel of at least elementary precautions to fight home fires throughout your community.

Let's Look at the Record As this issue of VOLUNTEER FIREMEN goes to press, the preliminary estimates of fire loss for 1935 indicate a remarkably low level of destruction by fire as compared with the last two decades. There will be many and varied pronouncements on the underlying reasons for the marked decline of losses during the past five years. There is no one factor responsible but a combination of many. We believe that not the least of these is the gradual awakening of fire prevention consciousness in the public mind which is the result of years of painstaking effort by the earnest men who have devoted time and energy to this work. Improvement in fire department training and efficiency is another factor. Better arson laws and better investigations of suspicious fires by state fire marshals and by fire departments is a third. Real effort will be required in the coming year to maintain and improve the low fire loss record of 1935. Volunteer fire departments are playing their important part in the campaign against waste of life and property by fire.

New Members in December Four hundred and seventy-five firemen from 21 departments enrolled in the Volunteer Firemen's Section for the first time last month. In addition, 542 men from 27 companies or departments sent in their renewal applications. The new members are listed below. The total membership is now 9,474.

El Monte Volunteer Fire Department, El Monte, California.

Bloomingdale Volunteer Fire Department, Bloomingdale, Illinois.

Winnetka Fire Department, Winnetka, Illinois.

Denison Fire Department, Denison, Iowa.

Oelwein Fire Department, Oelwein, Iowa.

Hutchinson Fire Department, Hutchinson, Kansas.

Kiowa Fire Department, Kiowa, Kansas.

Sullivan Volunteer Fire Department, Sullivan, Missouri.

North Merchantville Fire Company, Merchantville, New Jersey.

North Brunswick Volunteer Fire Department, New Brunswick, New Jersey.

Kenmore Volunteer Fire Department, Kenmore, New York.

Apache Volunteer Fire Department, Apache, Oklahoma.

Edge Hill Fire Company No. 1, Edge Hill, Pennsylvania.

Brookline Fire Company, Upper Darby, Pennsylvania.

Swarthmore Fire and Protective Association, Swarthmore, Pennsylvania.

Charlottetown Fire Department, Charlottetown, Prince Edward Island.

Eureka Fire Department, Eureka, South Dakota.

Martin Fire Department, Martin, South Dakota.

Brownsville Fire Department, Brownsville, Tennessee.

Brady Fire Department, Brady, Texas.

Orleans Fire Department, Orleans, Vermont.

Just off the press . . .

CROSBY — FISKE — FORSTER

HANDBOOK of FIRE PROTECTION

Eighth Edition (1935)

Over one hundred well known authorities in the wide range of fire protection work have helped in the preparation of the eighth edition of this Handbook. First published in 1896, it has been issued in seven editions, the latest in 1924. The present (eighth) edition has been completely revised and is nearly one-third larger than the previous edition.

The Handbook is not a manual of fire fighting practice but the standard technical reference volume in the fire protection field. The Handbook is the basis of education for beginners and is the constant companion of experienced men specializing in fire protection or fire prevention.

The book contains 1,100 pages, is profusely illustrated, and handsomely bound. It is published by the National Fire Protection Association and is now available for only $4.50, postpaid.

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ORDER FORM

NATIONAL FIRE PROTECTION ASSOCIATION **Date** .....
60 Batterymarch Street, Boston, Mass.

Please send me ..... ***copies of the Eighth Edition of the Crosby-Fiske-Forster Handbook of Fire Protection, for which $*** ..... ***($4.50 per copy, postpaid) is enclosed.***

Name ..... **Address** .....

Membership Plan

VOLUNTEER FIREMEN'S SECTION
NATIONAL FIRE PROTECTION
ASSOCIATION

WHERE twenty or more firemen in a volunteer company or department affiliate with the Volunteer Firemen's Section the cost is 50 cents a year *per man*. Each fireman will receive one copy of VOLUNTEER FIREMEN, the monthly journal of the Volunteer Firemen's Section, mailed regularly to his home address. The company or department automatically becomes a member of the National Fire Protection Association and is entitled to full privileges of membership. All the literature regularly issued to N.F.P.A. members is mailed to headquarters of the company or department.

Membership may be applied for by one member of the company or department collecting 50 cents for each of the 20 or more members and making a single remittance for the group, or the company or department may take a membership for its men and make a single remittance from the company or department treasury.

Because of the large amount of material mailed to members, not less than $10.00 can be accepted from any company or department for membership dues.

Rules . . .

PYRENE PRIZE LETTER CONTEST

1. Contestants in the Pyrene Prize Letter Contest must be members of their local fire department.
2. Letters are to describe actual experiences where any approved fire extinguisher of any make has saved lives or property.
3. Trade names may be used but will be deleted in publication. Publishers reserve the right to edit winning letters to permit publication.
4. Each contestant automatically vouches for the truth of the facts presented from his own or others' experience.
5. Only one letter may be submitted each month.
6. Letters must be legibly written in ink or typewritten on white paper, one side only. Preference will be given to letters not over 250 words in length.
7. Letters received after the 15th of the month will be judged in following month's competition.
8. Monthly prizes in cash will be: 1st, $10.00; 2nd, $3.00; and 3rd, $2.00.
9. Address contest letter to Pyrene Prize Letter Contest, National Fire Protection Association, 60 Batterymarch Street, Boston, Mass.

Extinguishers Save Lives

Pyrene Prize Letter Contest Awards This Month Go to Letters Emphasizing Life Saving Value of Extinguishers

SPLIT-SECOND action with a fire extinguisher oftentimes averts a tragedy. But the extinguisher must be available at the right time and place. This month's prize winning letters tell dramatic stories. All of these fires were unnecessary and caused by human carelessness, but the fire extinguishers were on the job to check the results of thoughtless acts.

You have had or know of cases in your own experience where fire extinguishers have similarly been on the job. Send in your experience. You may win one of the cash prizes offered in this contest cooperatively by the Pyrene Manufacturing Company of Newark, N. J., and VOLUNTEER FIREMEN, and others will enjoy and profit by reading your story.

FIRST PRIZE—$10.00

HARRY BEASLY, *Chief*,
Fire Department, Chrisney, Indiana

Saves Own Life

"A while ago I was rebuilding an old truck. While mounting the gasoline tank some gasoline drained out on the floor and on the leg of my overalls. I lighted a cutting torch, and due to the dark goggles and the heat of the torch I did not realize for some moments that I had ignited the spilled gasoline on the floor and on my clothes.

"I shut off the torch and not wishing to fan the fire on my clothing by running I called for the mechanic to get a fire extinguisher. He tripped over a drop cord and fell under another car, so I made a dash for a carbon tetrachloride extinguisher on the wall. I sat down on the floor and pumped the liquid on my leg, putting the fire out. The remainder of the liquid put out the fire on the floor. I spent thirty days in the hospital, but my leg is still usable, thanks to the fire extinguisher."

SECOND PRIZE—$3.00

SAM W. BOLLINGER, *Driver*,
Fire Department, Jacksonville, Texas

Saves Trapped Men

"On November 26, 1935, at 5.50 P.M., I made a run to a gasoline fire at a service station. The fire was caused by a truck hitting one of the pumps and breaking the electrical wires, causing an arc which ignited the gasoline.

"Upon arriving I found the whole driveway and pump a mass of flames, and two attendants trapped on the inside of the building. Due to the underground tank having a small quantity of gasoline in it there was danger of an explosion.

"I grabbed one of the two 2½-gallon foam type extinguishers and quickly covered the broken pipes of the tank with foam, shutting the fire off and eliminating the danger of an explosion. I soon had the fire out, probably saving two lives and around seven thousand dollars in equipment and building."

THIRD PRIZE—$2.00

RICHARD FEIST,
Fire Department, Needles, California

Another Life Saved

"This happened in December, 1928 near Estes Park, Colorado, in less time than it takes to write it. Two fellows and myself had a contract to put up ice for use the following summer at Fern Lake Lodge, Rocky Mountain National Park. We packed our supplies in by horses, breaking trail on snowshoes for eight miles and arrived late in the afternoon. After taking care of the horses and supplies, Joe, one of the men, decided to fill a gasoline lantern from a 5-gallon can of high test gasoline. This was done in the kitchen sink.

"Meanwhile, I was looking around and noticed a 1-quart size carbon tetrachloride hand extinguisher hanging inside the kitchen door, and it is well I did. Joe used a coffee cup to fill the lantern and spilled gasoline over the sink and lantern in the operation. As I came back into the kitchen, Joe lighted the lantern, and instantaneously the sink and lantern were ablaze. Excitedly he grabbed the lantern, holding it at arm's length, at the same time stepping backwards toward the uncapped gasoline can only six feet away. I shouted for him to come towards me. With a few strokes from the extinguisher, the fire in the lantern and on Joe's gloves was extinguished and a few more strokes finished the blaze at the sink.

"The extinguisher saved Joe's life and prevented the complete loss of the Lodge."

HONORABLE MENTION

AUSTIN S. RYAN,
Hempstead Fire Dept., Hempstead, N. Y.

ALBERT C. GALLEY,
Pioneer Hook & Ladder Co. No. 1,
Columbus, Neb.

H. E. HOLZBERG,
Mentowese Volunteer Fire Assn.,
North Haven, Conn.

40 Years of Fire Protection Service

The N.F.P.A. Has Been the Clearing House for Authoritative Information Since 1896 — The Background From Which It Serves Volunteer Firemen

THE National Fire Protection Association was organized in 1896 by a group of men interested in reducing the fire losses throughout the United States and Canada. From its small beginning forty years ago the Association has gradually grown to the point where it has nearly three thousand five hundred members in all parts of the world. In addition its Volunteer Firemen's Section numbers almost nine thousand five hundred affiliated individuals. The Association never has become commercial in character and has steadfastly followed its objective of doing everything in its power to reduce loss of life and property from fire.

Membership in the Association has never been restricted, and any individual or concern interested in any phase of the reduction of the fire loss and fire fighting is eligible to membership.

In October, 1933, it organized the Volunteer Firemen's Section in the interest of the thousands of volunteers throughout the country. There is no other organization that is similar in character throughout the world. The Association has become the clearing house for all that is authoritative on the subject of the fire waste, fire protection and fire prevention.

Technical Standards

The technical standards developed by the Association are widely used as the basis of state, provincial and municipal legislation, as insurance requirements and as a guide by property owners.

There are some 40 current technical committees of the Association. The variety and importance of the subjects covered is shown by the titles of just a few of the committees: Automatic Sprinklers, Building Construction, Electrical, Fire Pumps, Flammable Liquids and Safety to Life.

The work of the preparation of standards and the revision of existing standards goes on unceasingly so that the standards are in step with progress in science and invention. There is no public effort in the history of the nation to which there has been so freely given over so long a period so much thought and painstaking technical investigation as the National Fire Protection Association.

Statement of Objects

of the National Fire Protection Association as expressed in its Articles of Association:

"To promote the science and improve the methods of fire protection and prevention; to obtain and circulate information on these subjects and to secure the co-operation of its members in establishing proper safeguards against loss of life and property by fire."

Education—Publicity

Aside from its technical work, the Association devotes a large proportion of its time and effort to the education of the general public in the prevention of the fire waste. Literature distributed by the Executive Office of the Association is prepared with the object of educating people generally in fire prevention. It is put into popular form so that anyone, whether familiar with the subject or not, is able to educate himself, protect his own property, and give advice to his neighbor. The International Fire Prevention Week campaign conducted throughout the United States and Canada every fall has been sponsored and promoted by the National Fire Protection Association. The Association meets annually in a four-days' convention, at which the members have an opportunity to discuss the latest developments in fire protection and prevention.

The Association issues a QUARTERLY MAGAZINE which is unique in providing special articles on fire hazards, fire protection and fire prevention. The Association maintains a Fire Record Department, and the information developed in this department is printed in the magazine, providing an indispensable amount of information for those who are interested in fire causes and fire prevention. All important fires that occur throughout the world, with special references to their origin, extent and manner of extinguishment, are described in the QUARTERLY MAGAZINE. The Association issues a monthly news bulletin to its members, giving current items of interest on any developments in the field so that the members are constantly kept up to date on these activities. Bulletins on various fire hazards and special posters are issued from time to time for general public distribution.

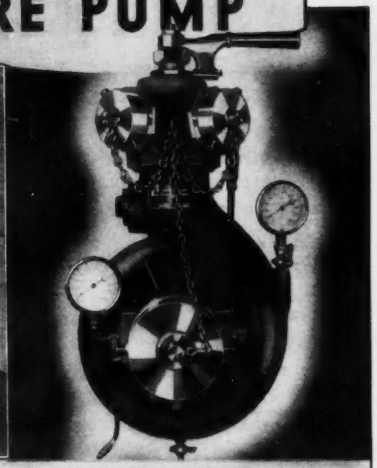
All these publications are issued to volunteer fire companies that are members of the Volunteer Firemen's Section, and in addition each fireman affiliated receives VOLUNTEER FIREMEN, the monthly journal of the section.

Membership

Membership is open to any individual or organization interested. No initiation fee is charged, the only expense is the annual dues. The membership plan is discussed on page 10 of this issue.

Membership in the Association pledges no one to any special course of action. The headquarters of the Association are at 60 Batterymarch Street, Boston, Mass. Sample copies of the literature issued by the Association or information on the work of the Association will be gladly sent to anyone interested.

A New Barton CENTRIFUGAL FIRE PUMP



THE U-60.. RATED 600 G.P.M.

The FIRST 600-Gallon Front-Mounted Fire Pump to Pass ALL Underwriters' Tests

Never before such wonderful performance — at such surprisingly LOW PRICE! Note what this powerful new pump will do. . . .

From suction (standard ratings) the new U-60 will pump 600 gallons per minute — develop pressures up to 250 pounds. From city hydrants, it throws 750 to 900 G.P.M. Centrifugal Type! — the dirtiest water can be handled safely! Automatically Primed!

That's going some! But listen to another fact of equal importance. So highly efficient is this new Barton Fire Pump—so little power required to drive — that you can use it on current model standard trucks.

THE U-60, FRONT-MOUNTED ON A FORD V-8, PASSED EVERY UNDERWRITERS' TEST — easily, smoothly — no strain on motor. **No, Sir, when you select a U-60, it isn't necessary to buy a heavy, specially-built, expensive truck. THIS SAVING ALONE RUNS INTO BIG FIGURES.**

And economy of installation is a money-saver too. WITHOUT A SINGLE CHASSIS CHANGE, a U-60 can be Front-Mounted and made ready for service in a few hours — COSTING BUT A FEW DOLLARS.

THEN THERE'S THE BARTON GEAR-DRIVE, part of the Pump. With this drive, the truck motor operates at approximately ONE-HALF pump speed. You can turn a U-60 wide open for maximum performance, YET THE MOTOR LOAFS ALONG. **Thus, years are added to the life of your motor.**

MR. CITY CHIEF, today you don't have to spend thousands upon thousands of dollars for large-capacity pumping apparatus. Instead select a U-60 — AND SAVE YOUR TAX-PAYERS PLENTY — or buy two for the price of one! Today, smaller towns also can have the VERY BEST, because the low-cost U-60 is well within their pocketbook range. Check Coupon below for Bulletin 75A.

AMERICAN STEAM PUMP CO. • BATTLE CREEK, MICH.
Please send me Bulletins as checked:

- ☐ No. 75A (Barton U-60, 600-gallon Gear-Driven Fire Pump.)
- ☐ No. 75 (Barton U-Type 350, 400 and 500-gallon Gear-Driven Fire Pumps.)
- ☐ No. 95 (Barton F-4 and F-5 Direct-Driven Fire Pumps.)

NAME .....

ADDRESS .....

ALSO NEW BARTON F-4 and F-5 Pumps at Still Lower Prices!

Another amazing development!—sensational! — taking the country by storm! Both F-4 and F-5 Centrifugal Direct-Drive Pumps have PASSED ALL UNDERWRITERS' TESTS — YET SELL AT LOWEST PRICES ON RECORD for 400 and 500-gallon capacities. The only standard Barton U-Type feature they lack is Gear-Drive. Astounding values! Check Coupon for Bulletin 95.

Records show that more than nine out of every ten accidents are side-swipes. Head-on accidents are the exception; sides-swipes the rule. A FRONT-MOUNTED BARTON FIRE PUMP IS OUT OF THE DANGER ZONE. With thousands of Barton Pumps in service, we know of only one ever damaged by collision. FRONT-MOUNTING = CONVENIENCE + ECONOMY + GREATER SAFETY.

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